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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,074	07/09/2003	Tom L. Pierson	2106.000200	9939
7590 08/06/2004			EXAMINER	
J. Mike Amerson Williams, Morgan & Amerson, P.C. Suite 1100 10333 Richmond Houston, TX 77042			RICHTER, SHELDON J	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/616,074

Applicant(s)

PIERSON ET AL.

Examiner

Sheldon J Richter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 27 Oct 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show demister 18A or 23A as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 24, 26, 36-38, 40, 61 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by NAKAHARA et al. Fig. 1 of NAKAHARA et al teaches a system having a first heat exchanger 3 adapted to receive a fluid from a heat source 1 and a working fluid, wherein, when the working fluid is passed through the first heat exchanger 3, the working fluid is converted to a vapor 2 via heat transfer from the heat contained in said fluid from said heat source 1; at least one turbine 5 adapted to receive said vapor 2; an economizer heat exchanger 6 adapted to receive exhaust vapor from said at least one turbine 5 and said working fluid, wherein a temperature of the working fluid is adapted to be increased via heat transfer with said exhaust vapor from said at least one turbine 5 prior to the introduction of said working fluid into said first heat exchanger 3; a condenser heat exchanger 7 that is adapted to receive said exhaust vapor from said at least one turbine 5 after said exhaust vapor has passed through said economizer heat exchanger 6 and a cooling fluid 9, wherein a temperature of said exhaust vapor is reduced via heat transfer with said cooling fluid 9; and a pump 8 that is adapted to circulate said working fluid to said economizer heat exchanger 6. With reference to the subject matter recited in claims 2 and 37, such limitation(s) is deemed to be inherent in the reference. With reference to claims 36-38, 40, 61 and 63, the term “desuperheater heat exchanger” is considered to read upon heat exchanger 6 of NAKAHARA et al.

4. Claims 1-2, 4, 24, 26, 36-38, 40, 61 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith. Fig. 5 of Smith teaches a system having a first heat exchanger 22 adapted to receive a fluid from a heat source and a working fluid, wherein, when the working fluid 7 is

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passed through the first heat exchanger 22, the working fluid is converted to a vapor 3 via heat transfer from the heat contained in said fluid from said heat source; at least one turbine 24 adapted to receive said vapor 3; an economizer heat exchanger 28 adapted to receive exhaust vapor 4 from said at least one turbine 24 and said working fluid, wherein a temperature of the working fluid is adapted to be increased via heat transfer with said exhaust vapor from said at least one turbine 24 prior to the introduction of said working fluid into said first heat exchanger 22; a condenser heat exchanger 26 that is adapted to receive said exhaust vapor from said at least one turbine 24 after said exhaust vapor has passed through said economizer heat exchanger 28 and a cooling fluid, wherein a temperature of said exhaust vapor is reduced via heat transfer with said cooling fluid; and a pump 20 that is adapted to circulate said working fluid to said economizer heat exchanger 28. With reference to the subject matter recited in claims 2 and 37, such limitation(s) is deemed to be inherent in the reference. With reference to claims 36-38, 40, 61 and 63, the term "desuperheater heat exchanger" is considered to read upon heat exchanger 28 and/or 26 of Smith.

5. Claims 1-2, 4, 24, 26, 36-38, 40, 61 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by 5953918. Fig. 3 of 5953918 teaches a system having a first heat exchanger HE-5 adapted to receive a fluid from a heat source 25 and a working fluid, wherein, when the working fluid is passed through the first heat exchanger HE-5, the working fluid is converted to a vapor 17 via heat transfer from the heat contained in said fluid from said heat source 25; at least one turbine T adapted to receive said vapor 17; an economizer heat exchanger HE-2 adapted to receive exhaust vapor 34 from said at least one turbine T and said working fluid, wherein a temperature of the working fluid is adapted to be increased via heat transfer with said exhaust

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vapor from said at least one turbine T prior to the introduction of said working fluid into said first heat exchanger HE-5; a condenser heat exchanger HE-1 that is adapted to receive said exhaust vapor from said at least one turbine T after said exhaust vapor has passed through said economizer heat exchanger HE-2 and a cooling fluid 23, wherein a temperature of said exhaust vapor is reduced via heat transfer with said cooling fluid 23; and a pump P that is adapted to circulate said working fluid to said economizer heat exchanger HE-2. With reference to the subject matter recited in claims 2 and 37, such limitation(s) is deemed to be inherent in the reference. With reference to claims 36-38, 40, 61 and 63, the term "desuperheater heat exchanger" is considered to read upon heat exchanger HE-3 of 5953918.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 5-23, 25, 27-35, 39, 41-60, 62 and 64-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over NAKAHARA et al, Smith or 5953918. The additionally recited subject matter is considered to be obvious design choice modifications of NAKAHARA et al, Smith or 5953918.

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*Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hashiguchi et al and SEKIYA are cited to show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheldon J Richter whose telephone number is (703) 305-0475.

The examiner can normally be reached on M-F 9:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (703) 308-2623. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sheldon J Richter  
Primary Examiner  
Art Unit 3748

SJR